

Lake County Stormwater Quality Best Management Practices Manual

Lake County, Ohio



Lake County, one of the first counties in Northeast Ohio to have established a Stormwater Management Department, retained Biohabitats to assist them with the development of a Stormwater Best Management Practices (BMP) Manual for land development activities within the County. Biohabitats' first task was to develop and organize an overall framework for the manual, including sections on water quality BMPs specifically applicable to the physiographic setting of Northeast Ohio. Biohabitats' overall approach for developing the framework

for the manual was to collect and review existing stormwater management manuals from other local jurisdictions throughout the Midwest and East Coast, and then to develop a list of recommended water quality BMPs that are applicable to Lake County's geologic setting, prevailing weather patterns, and land development activities.

From this framework, Lake County directed Biohabitats to develop the first three sections of the manual, which entailed developing and presenting design guidance for bioretention practices, swales, and filter strips. These sections present

Lake County is leading the way in Northeast Ohio to ensure that future land development activities have minimal impact on the rivers and streams that feed Lake Erie.

streamlined, straightforward guidance on designing the BMPs for unique conditions found throughout Lake County. For each BMP, a detailed description is provided along with possible application in various settings, such as residential neighborhoods, commercial areas, and transportation land uses. Both concept graphics and photos of actual practices are used throughout the manual sections to illustrate potential application as well as specific design elements.

Biohabitats paid particular attention to tailoring the sections to local conditions in Lake County – such as design adaptations for cold weather, snow considerations, and local native plants. In addition, the sections present design variants

to account for variations in geology, soil type, and depth of groundwater and bedrock found throughout the County.

Several useful appendices were developed to facilitate design and plan review, including plan review checklists, construction specifications, typical construction sequencing, and construction inspection checklists. Finally, recognizing that the life of a BMP extends well beyond construction, the sections provide detailed guidance on long-term inspection and maintenance protocols, including tables of typical maintenance activities and frequencies for each type of BMP.

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